1 2 3 4	Russell C. Petersen (Cal. Bar No. 264245) Russ.Petersen@hansonbridgett.com Hanson Bridgett LLP 425 Market Street, 26 th Floor San Francisco, CA 94105 Telephone: (415) 777-3200 Fax: (415) 541-9366		
5 6 7 8 9 110 111	Li Chen (pro hac vice) lchen@chenmalin.com Steven Malin (pro hac vice) smalin@chenmalin.com Kristoffer Leftwich (pro hac vice) kleftwich@chenmalin.com Chen Malin LLP 1700 Pacific Avenue, Suite 2400 Dallas, TX 75201 Telephone: (214) 627-9950 Fax: (214) 627-9940 Attorneys for Everlight Electronics Co., Ltd. And Everlight Americas, Inc.		
12 13	UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF CALIFORNIA OAKLAND DIVISION		
14	Everlight Electronics Co., Ltd.,	Case Number: 4:17-cv-3363-JSW	
15	Plaintiff,		
16	V.	RESPONSIVE CLAIM CONSTRUCTION	
17	Bridgelux, Inc.,	BRIEF OF EVERLIGHT ELECTRONICS CO., LTD. AND EVERLIGHT	
18	Defendant.	AMERICAS, INC.	
19	Bridgelux, Inc.,	Dept: Courtroom 5, 2 nd Floor Judge: Hon. Jeffrey S. White	
20	Counterclaim Plaintiff,	Complaint Filed: June 10, 2017	
21	v.	Am. Answer/Countercl. Filed: July 31, 2017	
22	Everlight Electronics Co., Ltd. and		
23	Everlight Americas, Inc.,		
24	Counterclaim Defendants.		
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I. INTRODUCTION

Everlight Electronics Co., Ltd. and Everlight Americas, Inc. (collectively, "Everlight") respond below to the opening claim construction brief of Bridgelux, Inc. ("Bridgelux") related to U.S. Patent nos. 6,869,812 (the "'812 Patent), 8,567,988 (the "'988 Patent"), 8,256,929 (the "'929 Patent"), and 8,092,051 (the "'051 Patent").

II. CONSTRUCTION OF DISPUTED TERMS OF '812, '929, '988, AND '051 PATENTS

A. "the aspect ratio of the active area is between approximately 1.5 to 1 and approximately 10 to 1" ('812 Patent claim 3)

Everlight's Construction	Bridgelux's Construction
The ratio of length to width (of the active area)	No construction necessary.
is within the range of ratios from slightly less	
than 1.5 to 1 to slightly greater than 10 to 1;	
the endpoints 1.5 to 1 and 10 to 1 are included	
within the range.	

Everlight proposes that this term of the '812 Patent be construed as "the ratio of length to width (of the active area) is within the range of ratios from slightly less than 1.5 to 1 to slightly greater than 10 to 1; the endpoints 1.5 to 1 and 10 to 1 are included within the range." Bridgelux asserts that no construction is necessary, but in rejecting Everlight's proposal Bridgelux seeks to introduce ambiguity on the issue of whether the stated endpoints are included within the range. This ambiguity, Everlight submits, will complicate the fact-finder's task.

Everlight's proposed definition is consistent with numerous courts' constructions of the term "approximately." When courts construe the term "approximately" (and the similar term "about"), they routinely include the end points of a range and slightly beyond. *E.g., Quantum Corp. v.**Rodime, PLC, 65 F.3d 1577, 1581 (Fed. Cir. 1995) ("[t]he addition of 'approximately' which means 'reasonably close to,' eliminates the precise lower limit of [a] range, and, in so doing extends the scope of the range[; t]he term 'at least approximately 600 tpi' therefore defines an open-ended range starting slightly below 600."); see also Ortho-McNeil Pharm., Inc. v. Caraco Pharm. Labs., Ltd., 476 F.3d 1321, 1328 (Fed. Cir. 2007) (construing term "about 1:5" to mean "approximately 1:5, encompassing a range of ratios no greater than 1:3.6 to 1:7.1").

The case of Cohesive Techs., Inc. v. Waters Corp., 543 F.3d 1351 (Fed. Cir. 2008) is

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endpoint. The specific claim language at issue was "greater than about 30 [mu] m" *Id.* at 1367, and the court stated: "by including the word 'about,' the patentee plainly intended the limitation 'greater than about 30 [mu] m' to encompass columns with particles with average diameters that are less than 30 [mu] m, but are still greater than 'about' 30 [mu] m." *Id.* at 1368. The court "conclude[d] that the proper construction of 'greater than about 30 [mu] m' . . . is: either (1) greater than 25.434 [mu] m, or (2) both greater than 23.044 [mu] m and of sufficiently large size to assure that the column is capable of attaining turbulence." *Id.* at 1371 (emphasis omitted).

The phrases "approximately 1.5 to 1" and "approximately 10 to 1" are used in the Bridgelux patent in exactly the same way as the phrase in *Cohesive Technologies*, *Quantum Corp.*, and *Ortho-McNeil*. Bridgelux is using a term of estimation ("approximately") to mean a range from slightly below the lower endpoint to slightly above the higher endpoint. Everlight's proposed definition—"within the range of ratios from slightly less than 1.5 to 1 to slightly greater than 10 to 1; the endpoints 1.5 to 1 and 10 to 1 are included within the range"—aligns with the reasoning set forth in each of these holdings.

Bridgelux criticizes Everlight for not also seeking the construction of "approximately 1.5 to 1" in claim 1, "approximately 2 to 1," in claim 2, and "approximately 4 to 1" in claim 4. This criticism rings hollow. There is no reason to separately construe "approximately 1.5 to 1" when that ratio is already in the term sought to be construed (i.e., "between approximately 1.5 to 1 and approximately 10 to 1"). Second, claim 4 is not asserted in this case, so construing that term wastes time and effort. But primarily, the framed issue is that certain prior art references read directly on the asserted claims of the '812 patent, and these references disclose an aspect ratio of 10 to 1. Thus, whether the phrase "between approximately 1.5 to 1 and approximately 10 to 1" should be construed to mean "from slightly less than 1.5 to 1 to slightly greater than 10 to 1; the endpoints 1.5 to 1 and 10 to 1 are included within the range" is case dispositive with respect to the affected claims. The ambiguity implicitly suggested by Bridgelux's non-construction position unnecessarily clouds basic issues in the case.

B. "transparent" (All asserted claims of '812 Patent)

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Everlight's Construction	Bridgelux's Construction
Allowing light to pass through almost undisturbed, such that one can see through it clearly.	No construction necessary.

Everlight proposes that "transparent" be construed as "allowing light to pass through almost undisturbed, such that one can see through it clearly." Such construction is consistent with use of the term "transparent" in the '812 Patent, which explains that as light created by the LED travels through the substrate, a certain amount of light is absorbed by the substrate. Ex. 1, '812 Patent at 3:3-5 ("The reflected light then bounces inside the LED until it finds a way out or is absorbed. The light intensity attenuates due to absorption in the bulk material.") In other words, a substrate that is transparent would absorb less of the LED's light than, for example, a substrate that is only semi-transparent. And that is the goal of the LED device – to radiate light out of the chip to the environment rather than have the created light absorbed by the chip where it provides no benefit.

Everlight's proposed definition is also consistent with multiple courts' constructions of the term "transparent." Courts routinely construe the term "transparent" as encompassing the passage of light and the ability to see through it clearly. E.g., Tex. Advanced Optoelectronic Sols. v. Intersil Corp., No. 4:08-CV-451, 2013 U.S. Dist. LEXIS 189892, at *30 (E.D. Tex. June 10, 2013) (construing "transparent dielectric layer" as "layer of insulating material that substantially allows light to pass through"); Dura Glob. Techs., Inc. v. Magna Donnelly Corp., Civil Action No. 2:07ev10945-SFC-MKM, 2010 U.S. Dist. LEXIS 113167, at *55 (E.D. Mich. Oct. 25, 2010) (construing "transparent pane" as "having the property of transmitting rays of light through its substance so that bodies situated beyond or behind can be distinctly seen"); MPT, Inc. v. Marathon Labels, Inc., No. 1:04 CV 2357, 2006 U.S. Dist. LEXIS 4612, at *3 (N.D. Ohio Feb. 7, 2006) (construing "transparent" to mean "transmitting light without appreciable scattering in a manner such as ordinary window glass so that objects placed behind the placard are clearly distinguishable"). Indeed, the Federal Circuit has construed "clear" interchangeably with: (1) "transparent or [(2)] having the property of transmitting light without appreciable scattering so that bodies lying beyond are seen clearly." *Terlep v. Brinkmann Corp.*, 418 F.3d 1379, 1384 (Fed. Cir. 2005).

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Everlight's proposed definition of "transparent" as "allowing light to pass through almost
undisturbed, such that one can see through it clearly" is also fully consistent with technical
dictionaries. For example, "transparent medium" is defined in McGraw-Hill Dictionary of
Scientific and Technical Terms (6th Ed. 2003) as "a medium which has the property of transmitting
rays of light in such a way that the human eye may see through the medium distinctly." Ex. 8 at
2181. Similarly, The American Heritage Science Dictionary (2005) defines "transparent" as
"allowing radiation or matter to pass through with little or no resistance or diffusion. Compare
opaque, translucent." Ex. 9 at 639.

In its opening claim construction brief Bridgelux asserts that "transparent" should be given its "plain and ordinary meaning" because:

"this term [transparent] is commonly used in the English language, which the jury will readily understand in the context of the surrounding claim language. Construction of the term "transparent" is unnecessary."

Bridgelux Opening Claim Constr. Brf. at 7.

Bridgelux has not always had this view, however. For example, Bridgelux previously asserted the '812 patent against Cree, Inc. in Civil Action No. 9:06-CV-240 in the U.S. District Court for the Eastern District of Texas. In that case, not only was the same '812 patent asserted as in the present case, the same '812 claim term "transparent" was in issue. Directly contrary to Bridgelux's assertion to this Court that "transparent" need not be construed because a jury will "readily understand the term", Bridgelux asserted to the Eastern District of Texas Court:

"Although, at first glance, the term "transparent" might be viewed as having a lay meaning with which the jury may be familiar, it has a particular meaning in the LED art and in the context of the '812 patent, and must be construed accordingly. *See Orion IP, LLC*, 406 F.Supp.2d at 724, 737, 738."

Ex. 3, Doc. 97, *Bridgelux, Inc. v. Cree, Inc.*, Civil Action No. 9:06-CV-240, Bridgelux, Inc.'s Opening Claim Construction Brief Regarding U.S. Patent No. 6,869,812 ("Bridgelux E.D. Tex. Brief") at 18.

While it may no longer be convenient for Bridgelux to acknowledge its prior statements to

the Eastern District of Texas, "transparent" as used in the '812 patent and LED art has a particular
meaning and should be construed by the Court. Indeed, after considering the arguments of both
Cree and Bridgelux regarding the meaning of "transparent" as used in the '812 patent, the Cree
Court construed "transparent" to mean "allowing light to pass through almost undisturbed, such that
one can see through it clearly." Ex. 4, Doc. 176, Bridgelux, Inc. v. Cree, Inc., Civil Action No. 9:06-
CV-240, Memorandum Opinion And Order Construing Claim Terms Of United States Patent Nos.
6,869,812, 6,614,056 And 6,885,036 at 15.

Everlight proposes the exact definition of "transparent" used by the Court in the *Cree* litigation. While the previous construction is clearly not binding on this Court, constructions of other courts are proper to consider in this Court's analysis. *Cf. Markman v. Westview Instruments*, *Inc.*, 517 U.S. 370, 390 (1996) ("[W]e see the importance of uniformity in the treatment of a given patent as an independent reason to allocate all issues of construction to the court."); *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1330 (Fed. Cir. 2008) ("Given 'the importance of uniformity in the treatment of a given patent," this court would be remiss to overlook another district court's construction of the same claim terms in the same patent."); *Arlington Indus. v. Bridgeport Fittings, Inc.*, 632 F.3d 1246, 1253 (Fed. Cir. 2011) ("In the interest of uniformity and correctness, this court consults the claim analysis of different district courts on the identical terms in the context of the same patent.").

Everlight's proposed definition is also consistent with other statements made by Bridgelux in arguing the meaning of "transparent" in the *Cree* litigation, such as: "Cree's proposed construction is inaccurate because it would also apply to semi-transparent, translucent, and/or nearly opaque materials. Such materials are not viewed by those skilled in the art, or even by laypersons, as transparent." Ex. 3, Bridgelux E.D. Tex. Brief at 19. So Bridgelux agrees that the term "transparent" must not include semi-transparent, translucent, or nearly opaque materials. Everlight's definition carves these prohibited qualities out of the definition (just like Bridgelux argued in the *Cree* case), but Bridgelux's proposal of "ordinary meaning" in the instant case would permit the jury—who doesn't understand the special technical meaning of "transparent" in the LED industry and '812 Patent—to find that semi-transparent, translucent and possibly opaque are indeed

"transparent." This would be an improper result.

Finally, Bridgelux argues that the construction of "transparent" from its litigation against Cree was in error "because the court in the Eastern District of Texas, in construing the term 'transparent,' effectively and errantly imported the limitation 'substantially' into its construction of the term." Bridgelux Opening Claim Constr. Brf. at 8. Bridgelux provides no evidentiary or legal support for this allegation; rather it is a "hail Mary" designed to avoid the *Cree* Court's construction of "transparent" at all costs. Bridgelux's argument also doesn't make sense, because even if the Eastern District of Texas Court gave a construction for "substantially transparent" (which it did not), the actual term in the '812 Patent claim asserted in the instant case is in fact "substantially transparent" so that the definition would be correct in any event.

Because Everlight's proposed definition is consistent with the '812 patent, Bridgelux's arguments in the *Cree* case, the *Cree* Court's construction of "transparent," multiple technical dictionaries from the relevant period, and numerous published cases construing the term "transparent," it should be adopted by the Court.

C. "[mounted / mounting...] directly to the reflective surface" (All asserted claims of '929 Patent, '988 Patent, and '051 Patent)

Everlight's Construction	Bridgelux's Construction
Mounted to the reflective surface with no	Bridgelux proposed "plain and ordinary
intervening elements present.	meaning" in the Joint Claim Construction and
	Prehearing Statement.
	Bridgelux changed its proposal in its opening claim construction brief to "mounted / mounting directly to the reflective surface by adhesive or other means with no intervening elements present."

The parties dispute the definition of "[mounted/mounting...] directly to the reflective surface." The key issue between the parties is whether the phrase should be construed consistent with the express definition in the patent specification and the patentee's distinction over the prior art during prosecution (Everlight's position), or whether the Court should modify the specification's express definition by inserting the term "by adhesive or other means" (Bridgelux's position).

The asserted '988, '929, and '051 Patents each define the meaning of "directly on" and

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specifically contrast the term "on" from the term "directly on," depending on whether there are any intervening elements present:

"It will be understood that when an element such as a region, layer, section, substrate, or the like, is referred to as being "on" another element, it can be directly on the other element or intervening elements may also be present. In contrast, when an element is referred to as being "directly on" another element, there are no intervening elements present."

Ex. 2, '929 Patent at 3:32-38 (emphasis added). Everlight's proposed construction – "Mounted to the reflective surface with no intervening elements present" – is taken verbatim from the patent applicant's own definition as stated in the patent specification. The patent specification makes clear that the purpose of avoiding intervening elements is to allow for an efficient thermal path between the LED chips and metal substrate. *Id.* at 4:60-65 ("Therefore, the LED chip 100 provides for different electrical and thermal paths to enable the LED chip 100 to be directly mounted to a metal substrate without the need for an insulating dielectric, thereby providing an efficient thermal path to reduce or minimize the degrading effects of heat on light output.").

The patentee also explained the purpose of mounting "directly on" with "no intervening elements present" in arguing over the prior art in PTO proceedings. In U.S. Pat. Appl. No. 12/240,011, the PTO examiner rejected Bridgelux's claims over the reference Yamada. Ex. 5, Final Rejection, April 23, 2012 at 2-3 (rejecting all pending claims over Yamada, including "a plurality of LED chips (2) mounted directly to the reflective surface of the metal substrate to allow for thermal dissipation.") In response to this rejection, Bridgelux argued to the Examiner that Yamada did not disclose the "mounted directly" element because it placed an insulating layer between the LEDs and metal substrate, as follows (with added emphasis):

"To set the stage for the discussion, it is noted that the term "directly" is defined as excluding any intervening elements (between the plurality of LED chips and the surface of metal substrate), cf, above-identified application paragraph [0019]. Because in general metals have high thermal conductivity, such direct mounting results in creation of an efficient thermal path allowing heat to pass from the plurality of LED chips to the metal

substrate, cf. claim 1, application paragraph [0026]. As such, the claim language is not an intended use, but limitation, as explained below.

"[T]he LED chips [in Yamada] are *not mounted directly* to the reflective surface of the metal substrate as the term is defined because of the present of an *intervening insulating* materials [sic] applied to the metallic base structure."

Ex. 6, Applicant's Argument/Remarks Made in an Amendment, July 20, 2012 at 6, 8.

The patentee—Bridgelux—thus explicitly defined "mounted directly to the reflective surface" to mean mounted to the reflective surface with no intervening elements present. This is exactly the definition for this term proposed by Everlight and, respectfully, it should be adopted by the Court. Indeed, on page 10 of its opening claim construction brief Bridgelux states that "Everlight's proposed construction is consistent with the plain and ordinary meaning of the term...," thus conceding the correctness and accuracy of Everlight's proposal.

Up to and including in the Joint Claim Construction and Prehearing Statement, Bridgelux took the position that no construction of this term was required. However, in its opening claim construction brief, Bridgelux for the first time inserts new claim elements into the "mounted directly" term. More specifically, Bridgelux seeks to insert the phrase "by adhesive or other means" into Everlight's proposed language, so that the term would be defined as "mounted mounting directly to the reflective surface *by adhesive or other means* with no intervening elements present." The problem with Bridgelux's new proposal is that it would categorically permit *all* adhesives placed between the chip and substrate to meet the elements of the claim, which is not supported by the intrinsic record.

Bridgelux's proposal—that all adhesives are not prohibited "intervening layers"—raises three problems. First, it is a fundamental principle of claim construction that courts "do not read

¹ The Court's Standing Order for Patent Cases mandates that "if it becomes necessary for a party to propose a construction that is different from the one found in the joint claim construction statement, that party must clearly set forth the new construction and explain the basis for the change." Bridgelux has not provided any explanation of basis for the change of its construction of this term. While Bridgelux cites Everlight's invalidity contentions, that document was served over nine months ago and well before claim construction started.

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limitations from the embodiments in the specification into the claims." Hill-Rom Services, Inc. v. Stryker Corp., 755 F.3d 1367, 1371 (Fed. Cir. 2014). Here, Bridgelux expressly defined the term 'directly on' to mean "no intervening elements present." There is no basis to read additional limitations into that express definition.

Second, Bridgelux's proposal ignores the objective of the patents: an efficient thermal path between the chip and substrate. As the specification states, a chip that is "mounted directly" has an efficient thermal path to dissipate heat, resulting in benefits such as the reduction in loss of optical power:

"By mounting the LED chip 100 directly on a metal substrate, an efficient thermal path is created (as indicated by the arrow 116) to allow heat to pass from the LED chip 100 to the metal substrate. By providing the efficient thermal path 116, the LED chip 100 is able to reduce or minimize any loss in optical power due to the effects of heating."

E.g., Ex. 2, '929 Patent 4:45-59. An "intervening element," conversely, interferes with the efficient thermal path and is prohibited by the claim.

The specification explains that an adhesive may be used to directly mount an LED chip to a substrate, provided that an efficient thermal path maintained. *Id*. It is the case that some adhesive layers have qualities that result in an efficient thermal path. They are not "intervening layers" that interfere with efficient heat transfer, and therefore fall within the scope of the "mounted directly" claim element. For example, the prior art reference EP Patent Publication No. 1 895 602 ("Sanpei") discloses an adhesive layer that creates an efficient thermal path and, therefore, satisfies the "mounted directly" claim element. Indeed, Sanpei is one of the references cited by Everlight in its Petitions for Inter Partes Review for the '929, '988, and '051 Patents. E.g., Ex. 7, Petition For Inter Partes Review Of U.S. Patent No. 8,256,929 Under 35 U.S.C § 312 And 37 C.F.R. § 42.104.

But Bridgelux's proposed construction would categorically permit all adhesives placed between the chip and substrate to meet the elements of the claim, even if the adhesives are configured as an insulating layer that blocks an efficient thermal path between the LED chips and metal substrate. If an adhesive layer obstructs or interferes with efficient thermal transfer, it would be considered an intervening element, and using such an adhesive layer would prevent the LED

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chip from being mounted "directly" to the substrate. Thus, some adhesives may satisfy the claim
element, others may not; that is a fact question to be determined for each product or prior art
reference. Bridgelux's proposed construction oversimplifies this question and allows for any and
all adhesives "or other means" to be positioned between the LED chips and metal substrate, even if
they defeat the very purpose of the invention. Everlight believes that its proposed claim definition
most closely aligns with the intrinsic record and avoids Bridgelux's overly-simplified view.

Third, Bridgelux's proposed language "or other means" has no basis in any asserted claim or patent disclosure. There is no support in the specification text or drawings for "other means" of mounting the LED chip and adding this term will simply confuse the fact finder. Moreover, adding the term "means" to the claim definition would arguably convert otherwise clear claim language into a Sec. 112(f) means-plus-function claim because of its use of the term "means." Applicable precedent forbids this change in claim scope in a judicial proceeding. *Cf. Keystone Bridge Co. v. Phoenix Iron Co.*, 95 U.S. 274, 278 (1877) ("[T]he courts have no right to enlarge a patent beyond the scope of its claim as allowed by the Patent Office...When the terms of a claim in a patent are clear and distinct (as they always should be), the patentee, in a suit brought upon the patent, is bound by it."); *Chef Am., Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1374 (Fed. Cir. 2004) ("Thus, in accord with our settled practice we construe the claim as written, not as the patentees wish they had written it.")

Based on the foregoing, Everlight respectfully requests that its definition of "mounted directly" be adopted by the Court.

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1	D	D
2	Date: August 17, 2018	Respectfully submitted,
3		/s/ Steven Malin Li Chen (pro hac vice)
4		lchen@chenmalin.com Steven Malin (pro hac vice)
5		smalin@chenmalin.com
6		Kristoffer Leftwich (pro hac vice) kleftwich@chenmalin.com
7		Chen Malin LLP 1700 Pacific Avenue, Suite 2400
8		Dallas, TX 75201 Telephone: (214) 627-9950
9		Fax: (214) 627-9940
10		Russell C. Petersen (Cal. Bar No. 264245) Russ.Petersen@hansonbridgett.com
11		Hanson Bridgett LLP 425 Market Street, 26 th Floor
12		San Francisco, CA 94105 Telephone: (415) 777-3200
13		Fax: (415) 541-9366
14		Attorneys for Everlight Electronics Co., Ltd. And Everlight Americas, Inc.
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CERTIFICATE OF SERVICE

I hereby certify that the foregoing document was filed with the Court's CM/ECF system which will provide notice on all counsel deemed to have consented to electronic service. All other counsel of record not deemed to have consented to electronic service were served with a true and correct copy of the foregoing document by electronic mail on this day.

Dated: August 17, 2018 Respectfully submitted,

CHEN MALIN LLP

By: Steven Malin

Attorneys for EVERLIGHT ELECTRONICS CO., LTD. AND EVERLIGHT AMERICAS, INC.